AL.3.1991-270
University of Alberta Library
0 1620 3433521 4

ASSIGNMENT BOOKLET

3216 MATHEMATICS 33 UNIT 2

CANADIANA
MAY 2 9 1991

FOR STUDENT USE ONLY

Date Module Submitted

_____

Time Spent on Module

_____

(If label is missing or incorrect)

File Number

_____

Module Number _____

FOR SCHOOL USE ONLY

Assigned Teacher: _____

Module Grading: _____

Graded by: _____

Date Module Received:

_____

Module Assignment Recorded _____

Student's Questions and Comments

Apply Module Label Here

Name

Address

Postal Code

Please verify that preprinted label is for correct course and module.

Teacher's Comments:

_____
Teacher

St. Serv. 20-89

ALBERTA CORRESPONDENCE SCHOOL

MAILING INSTRUCTIONS FOR CORRESPONDENCE ASSIGNMENT BOOKLET

1. BEFORE MAILING YOUR ASSIGNMENT BOOKLET PLEASE SEE THAT:

(1) All assignments are completed. If not, explain why.
(2) Your work has been re-read to ensure accuracy in spelling and details.
(3) The booklet cover is filled out and the correct module label is attached.

2. POSTAGE REGULATIONS

Do **not** enclose letters with Assignments Booklets.

Send all letters in a separate envelope.

3. POSTAGE RATES

First Class

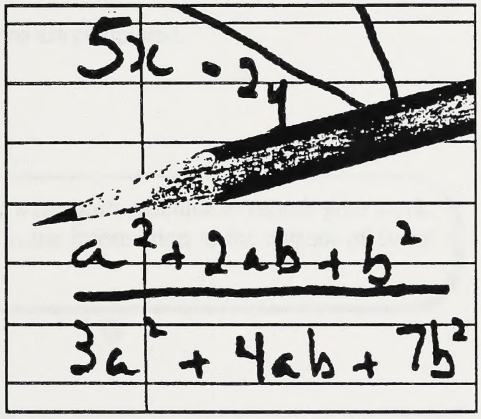
Take your Assignment Booklet to the Post Office and have it weighed. Attach sufficient postage and a green first-class sticker to the front of the envelope, and seal the envelope. Correspondence Assignment Booklets will travel faster if first-class postage is used.

Try to mail each Assignment Booklet as soon as it has been completed.

When you register for correspondence courses, you are expected to send Assignment Booklets for correction regularly. Do not send more than one Assignment Booklet in one subject at the same time.

MATHEMATICS 33

Polynomials and Rational Expressions



Unit 2

Assignment Booklet

Distance Learning

Alberta EDUCATION

Mathematics 33
Assignment Booklet
Unit 2
Polynomials and Rational Expressions
Alberta Correspondence School
ISBN No. 0-7741-0096-6

ALL RIGHTS RESERVED

Copyright © 1991, the Crown in Right of Alberta, as represented by the Minister of Education, Alberta Education 11160 Jasper Avenue, Edmonton, Alberta, T5K 0L2.
All rights reserved. Additional copies may be obtained from the Learning Resources Distributing Centre.

No part of this courseware may be reproduced in any form including photocopying (unless otherwise indicated), without the written permission of Alberta Education.

Every effort has been made both to provide proper acknowledgement of the original source and to comply with copyright law. If cases are identified where this has not been done, please notify Alberta Education so appropriate corrective action can be taken.

UNIVERSITY LIBRARY
UNIVERSITY OF ALBERTA

Your mark on this unit will be determined by how well you answer the questions in this booklet.

Work slowly and carefully. If you are having difficulties, go back and review the topic.

The topic that you studied in your unit is covered in this assignment booklet.
The total value of the topic is 100 marks. It is divided into several questions.
The value of each question is stated in the left margin.

Be sure to proofread each answer carefully.

Do not hand in this booklet until all questions are completed.

Faxing ?

If you are using a facsimile machine to submit your work, be sure to fill in the information at the bottom of every response page.

FOR TEACHER'S USE ONLY

Summary

	Total Possible Marks	Your Mark
Topic 1	100	
	100	

Teacher's Comments

Topic 1: Operations with Rational Expressions

(5)

1. Identify the rational expressions. If the expression is a rational expression, write an **R** beside it. If the expression is not a rational expression, write an N beside it.

   a. $\frac{1}{3}$

   b. x^{-3}

   c. $\frac{7x+2}{x^2-1}$

   d. $2\sqrt{x}+3$

   e. $x-\frac{1}{x}+4$

2. Simplify each of the following.

(1)

   a. $\frac{14x^2y^5}{21x^3y^4}$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(1) b. $\dfrac{6x^2+2x}{6x^3-7x^2-3x}$

(1) c. $\dfrac{2x^2+2x-4}{2x^2-8}$

(1) d. $\dfrac{3x^2-2x-5}{9x^2-25}$

(3) 3. A bag of candy has a mass of $(15x^3-2x^2-x)$g. The bag contains $(3x-1)$ candies. Write a rational expression, in simplest form, that represents the average mass of each piece of candy.

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

Digitized by the Internet Archive
in 2016 with funding from
University of Alberta Libraries

https://archive.org/details/mathematics3302albe_0

4. Determine the nonpermissible values for each of the following rational expressions.

(1) a. $\frac{3}{x}$

(1) b. $\frac{y-2}{xy}$

(1) c. $\frac{x-3}{5x-4}$

(2) d. $\frac{x-5}{x^2-5x-24}$

(2) e. $\frac{x^2-5x-6}{(x^2-9)(2x^2-5x-7)}$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(2) 5. Why is division of a natural number by zero undefined?

(1) 6. If $(x)(y) = 0$, then what can you say about the possible values for x or y?

(1) 7. Simplify the expression $\frac{a-b}{b-a}$.

(1) 8. Simplify the expression $\frac{10x^{50}y^{70}}{5x^{48}y^{73}}$.

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(4) 9. Multiply and simplify.

$$\frac{a^2-2a}{a^2-4} \times \frac{a^2+2a}{a^2}$$

(3) 10. Divide and simplify.

$$\frac{3t^2}{-2y} \div \frac{6t^3}{4y^2}$$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(4) 11. Divide and simplify.

$$\frac{x-3}{2-x} \div \frac{2x-6}{x-2}$$

(5) 12. Multiply and simplify.

$$\frac{11ab^3}{5a^2b^4} \times \frac{10a^3b}{22ab}$$

(5) 13. Multiply and simplify.

$$\frac{5x^2-45}{x^2-6x-7} \times \frac{x^2-1}{3x^2+11x+6}$$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(5)

14. Divide and simplify.

$$\frac{3x+12}{6x+18} \div \frac{x^2+4x-12}{x^2+9x+18}$$

(1)

15. Before two rational expressions can be added, they must have the same

_____.

16. Add or subtract, as indicated, and simplify the following.

(2)

a. $\frac{2x+3}{x-2} - \frac{x+5}{x-2}$

(2)

b. $\frac{x}{x+y} + \frac{y}{x+y}$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

17. Find the L.C.D. for each rational expression.

(2) a. $\frac{2}{3x^2} - \frac{5}{2x}$

(2) b. $\frac{5}{4x^2y} + \frac{10}{6xy^3}$

(2) c. $\frac{2}{x^2 - 3x} + \frac{5}{x^2 - 9}$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

18. Add or subtract, as indicated, and simplify the following.

(3) a. $\frac{3x+1}{x-1}+\frac{2x+2}{1-x}$

(3) b. $\frac{2x+3}{x-2}-\frac{x+1}{2-x}$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

19. Add or subtract, as indicated, and simplify the following.

(3) a. $\frac{5}{x+4}+\frac{3}{x+1}$

(3) b. $\frac{x+5}{x-4}-\frac{x+6}{x-3}$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

20. Add or subtract, as indicated, and simplify the following.

(4) a. $\dfrac{5}{a^2-16}+\dfrac{2}{a^2-4a}$

(4) b. $\dfrac{2x-3y}{x^2-y^2}-\dfrac{1}{x-y}$

(4) c. $\dfrac{3x}{x^2-9}+\dfrac{2}{x+3}-\dfrac{1}{x-3}$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(3) 21. Solve the following equation.

$$\frac{4x+1}{2x+3}=\frac{2x-1}{x+2}$$

(3) 22. Solve the following equation.

$$\frac{2x-2}{x+2}=2+\frac{5-x}{x+2}$$

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(3)

23. Solve the following equation.

$$\frac{4}{x+2} - \frac{3}{x+3} = \frac{8}{x^2+5x+6}$$

(3)

24. What number must be added to the numerator and the denominator of $\frac{1}{7}$ to give a fraction equal to $\frac{5}{6}$?

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

(3)

25. Solve for x in the following equation.

$$\frac{x}{3} - \frac{x+5}{4} = \frac{2x+3}{6}$$

Topic 1

_____ marks

Name of Student _____ Student I.D. # _____

Name of School _____ Date _____

N.L.C. - B.N.C.
3 3286 10641822 7

Mathematics 33

9MA33W22

L.R.D.C.
Producer

SECOND EDITION
1991